

REMARKS

Please replace Fig. 18b with the attached replacement sheet, in which reference number “44” is changed to “42.” Support for this corrections can be found at least in page 8, lines 19-20 of the application. Also, the specification is amended to delete reference number 64, as it is not shown in the drawings. Applicant submits that no new matter has been added.

Claims 16-22, 27-35, 39-45, and 49-56 have been amended. Claims 23-26, 35-38, 46-48, and 57-59 remain in this application. Claims 60-63 have been added.

Applicant has amended claims 16, 28, 39, and 50 to more clearly identify a novel and non-obvious feature of embodiments of the claimed invention. Specifically, claims 16, 28, 39, and 50 have added the limitation “growing an insulator liner layer over sides of said trenches and underlying said spacer insulator”. Support for this limitation can be found at least on Fig. 15b of the application. Accordingly, Applicant submits that no new matter has been added to the application by this amendment.

Applicant has amended claims 17-22, 27, 29-35, 40-45, 49, and 51-56 to correct minor errors. Specifically, claims 17-22, 27, 29-35, 40-45, 49, and 51-56 are amended to depend from independent method claims. Further, claims 16, 28, 39, and 50 are added the limitation “patterning said gate insulator layer, said conductive layer and said insulator layer to form a plurality of tiered parallel stripes”. Support for this limitation can be found at least on Fig. 13b of the application. Accordingly, Applicant submits that no new matter has been added to the application by this amendment.

Applicant has amended claims 60-63 to more clearly identify a novel and non-obvious feature of embodiments of the claimed invention. Specifically, claims 60-63 have added the

limitation “said spacer insulator layer is on said insulator liner layer”. Support for this feature can be found at least in Fig. 15b of the application.

Discussion of Rejections Under 35 U.S.C. 103(a)

The Office Action tentatively rejected claims 16-59 under 35 U.S.C. 103(a) as allegedly unpatentable over Lin et al. (U. S. Patent 5,851,881). Applicant respectfully traverses the rejections for at least the reasons discussed below.

Nowhere does the cited reference teach or suggest “growing an insulator liner layer over sides of said trenches and underlying said spacer insulator,” which has been added by amendment. Instead, Lin et al. appear to teach a pad oxide over the substrate 10, but fail to teach or suggest “growing an insulator liner layer over sides of said trenches and underlying said spacer insulator”. In fact, Lin et al. teach the spacer 47 is beyond the pad oxide. *See* Lin et al. at column 6, lines 36-43 and Figs. 1G through 1I, wherein the source and drain regions 50 through 53 are formed underlying the removed spacers 47. Formation of an insulator liner layer over sides of said trenches and underlying said spacer insulator of the application and the source and drain regions 50 through 53 of Lin et al. are mutually incompatible. The now-claimed “growing an insulator liner layer over sides of said trenches and underlying said spacer insulator” is not even contemplated by Lin et al. Further still, one of ordinary skill in the art would not have been motivated to grow an insulator liner layer over sides of said trenches and underlying said spacer insulator by the teachings of Lin.

For at least this reason, Applicant respectfully submits that the cited reference, fails to disclose or render obvious the “growing an insulator...” feature of the above-discussed embodiments, as set forth in claims independent 16, 28, 39, and 50.

For at least this reason, claims 16, 28, 39, and 50 are allowable over the cited art of record. Insofar as claims 17-27, 29-38, 40-49, and 51-59 depend from claims 16, 28, 39, and 50, these claims are also allowable.

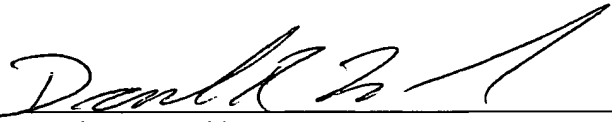
Similarly, Applicant respectfully submits that the cited art or record, either alone or in combination, fail to disclose or render obvious the feature of claims 60-63. For at least this reason new claims 60-63 are allowable.

CONCLUSION

In view of the foregoing, it is believed that all pending claims are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

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In the Drawings

Please replace Fig. 18b with the attached replacement sheet, in which reference number “44” is changed to “42.”

Attachments:

Annotated drawing sheet.

Replacement drawing sheet.

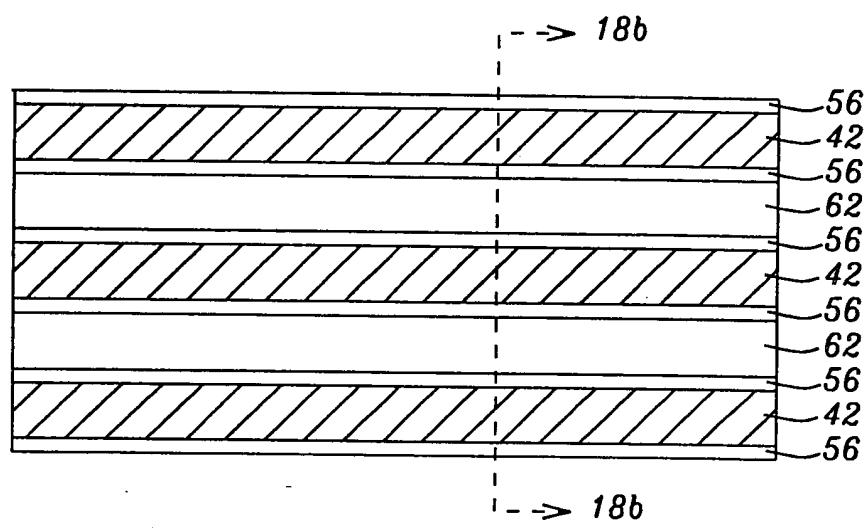


FIG. 18a

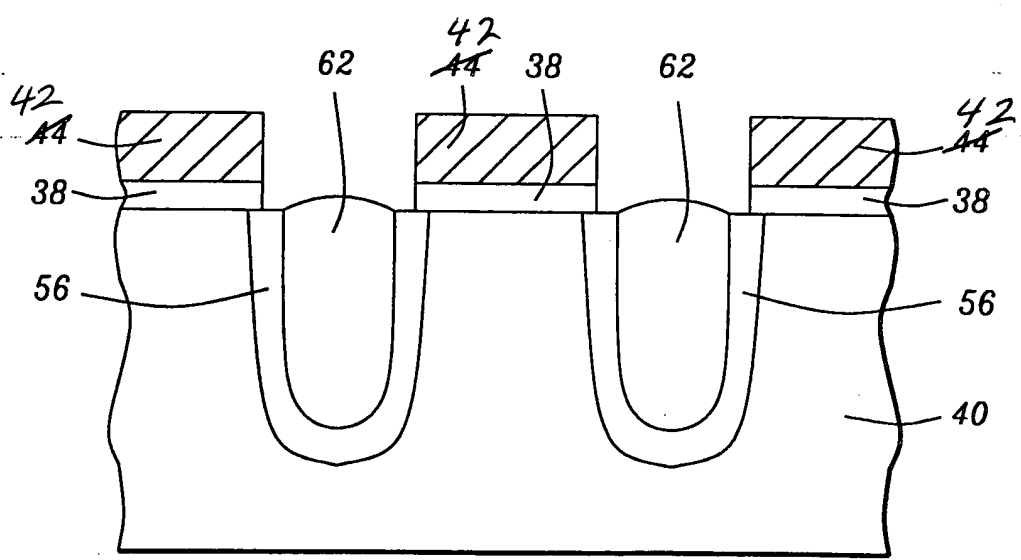


FIG. 18b